Emotion Recognition and Intellectual Disability: Development of the Kinetic Emotion Recognition Assessment and Evaluation of the Emotion Specificity Hypothesis

A thesis presented in partial fulfilment of the requirements for the degree of

Doctor of Clinical Psychology

at Massey University, Albany,

New Zealand.

Zara Angela Godinovich

2017

ABSTRACT

Deficits in social adaptive functioning are a defining criterion of intellectual disability (ID) (American Psychiatric Association, 2013), and a key predictor of social inclusion and subsequent quality of life (Kozma, Mansell, & Beadle-Brown, 2009). Impairment in facial emotion recognition is often cited as the component skill responsible for the social difficulties observed. This position has been formally conceptualised by the emotion specificity hypothesis (ESH; Rojahn, Rabold, & Schneider, 1995), which proposes that individuals with ID manifest a specific deficit in facial emotion recognition beyond that which can be explained by difficulties in general intellectual functioning. Despite apparent widespread acceptance, there is not yet sufficient evidence to substantiate these claims. Moore (2001) proposes that emotion perception capacities may be intact in people with ID, and that reported deficits are instead, due to emotion recognition tasks making extensive cognitive demands that disadvantage those with lesser cognitive abilities.

The aim of the present study was to clarify the nature of facial emotion recognition abilities in adults with mild ID. To this end, the Kinetic Emotion Recognition Assessment (KERA), a video-based measure of facial emotion recognition, was developed and a pilot study completed. The measure was designed to assess emotion recognition abilities, while attempting to reduce information-processing demands beyond those required to perceive the emotional content of stimuli. The new instrument was assessed for its psychometric properties in individuals with ID and neurotypical control participants. Initial findings supported the inter-rater reliability and overarching construct validity of the measure, offering strong evidence in favour of content, convergent and predictive validity. Item difficulty and discrimination analysis confirmed that the KERA included items of an appropriate level of difficulty to capture the range of emotion recognition capacities expected of individuals with mild ID.

The secondary focus of the study was to assess how subtle methodological changes in the assessment of emotion recognition ability may affect emotion recognition performance, and

in turn provide insight into how we might reinterpret existing ESH literature. To this end, the KERA was also applied in an investigation of the potential moderating effects of dynamic cues and emotion intensity, in addition to the assessment of the ESH. The results offer strong evidence that individuals with ID experience relative impairment in emotion recognition abilities when compared with typically developing controls. However, it remains to be seen whether the observed difficulties are specific to emotional expression or associated with more generalised facial processing. Preliminary findings also suggest that like their typically developing peers, individuals with ID benefit from higher intensity emotional displays; while in contrast, they observe no advantage from the addition of movement cues. Finally, the overarching motivation for the reassessment and improved measurement of the ESH, was in the interests of improving real-world outcomes associated with emotion recognition capacities. Accordingly, emotion recognition data were also interpreted in the context of three measures of social functioning to explore the link between social competence and emotion recognition ability. Results indicated that emotion recognition abilities are linked to outcomes in social adaptive functioning, particularly for females.

ACKNOWLEDGEMENTS

The successful completion of this thesis is due, in no small part, to the people who have guided and shared my journey. First, I wish to thank all those who participated in this study, including the teachers, family, service providers and care staff who facilitated recruitment and participation. Thank you for your time and energy and sharing my enthusiasm for this project.

Thank you to my wonderful supervisors. To Dr Richard Fletcher, for providing invaluable theoretical input consistently from day one. Thank you for being so generous with your time and your persistence with this study. Your confidence has been a constant source of motivation throughout this project. Dr Ian de Terte, thank you for your clinical insights and your valuable feedback on written work. Your guidance and flexibility during the early stages of the project is also much appreciated. I could not have asked for two better supervisors, and I certainly hope that we have opportunity to collaborate again in the future. Others I thank are Michele Blick, who offered great support during the data collection phase of this project, and Harvey Jones of Massey University responsible for developing the computer software used in this study.

A special thank you to my family and friends, especially my partner Wilbur who has given so much so that I may complete my studies with as little stress and as much happiness as possible. I look forward to spending more time with you and many more adventures in the years ahead. Others I thank are my parents Marica and Tony, and grandparents Radica and Milan, for their ongoing care and interest in my work and general well-being. Also, Amanda for her words of wisdom and my in-laws Aubrey and Isabel for their gentle encouragement. I would also like to acknowledge my siblings and long-time friends who have patiently been there since I first decided I would like to spend another year (or two), at university. Zach, I cannot thank you enough for hours spent helping me transform a therapy room into a photo studio! Finally, thank you to my office buddies and friends made along the way, who have provided a great sense of community and comic relief. This journey would not have been the same without your friendship.

I would also like to acknowledge Massey University for their additional financial support by way of the Massey University Doctoral Scholarship and Targeted Doctoral Completion Scholarship. Thank you for your generous provision, it made a world of difference to the time and effort I was able to dedicate to this project.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES